

3. (currently amended) The diamond-coated silicon according to claim 1 ~~or 2~~, wherein the silicon substrate is single crystalline, polycrystalline or amorphous.

4. (currently amended) The diamond-coated silicon according to claim 1 ~~any one of claims 1 to 3~~, wherein the silicon substrate is coated with electrically conductive diamond by the chemical vapor deposition process.

5. (currently amended) A manufacturing method of a diamond-coated silicon comprising coating a silicon substrate having a thickness of 500 μm or less at least partially with electrically conductive diamond by a ~~the~~ chemical vapor deposition process.

6. (currently amended) A manufacturing method of a diamond-coated silicon comprising the steps of:

(a) ~~a step for~~ manufacturing a silicon substrate having a thickness of 500 μm or less by a ~~the~~ plate-like crystal growth process; and

(e) ~~a step for~~ coating the manufactured silicon substrate at least partially with electrically conductive diamond by chemical vapor deposition process.

7. (currently amended) The manufacturing method of a diamond-coated silicon according to claim 6, wherein the plate-like crystal growth process is ~~at least one~~ selected from the group consisting of: an EFG process, ~~the~~ a string ribbon process and ~~the~~ a dendritic web process.

8. (currently amended) The manufacturing method of a diamond-coated silicon according to claim 6 ~~or 7~~, wherein the step (a) and the step (e) are successively carried out.

9. (currently amended) The manufacturing method of a diamond-coated silicon according to claim 6 ~~any one of claims 6 to 8~~, further comprising, between the step (a) and the step (e),

(d) a step for controlling a pressure at least once.

10. (currently amended) The manufacturing method of a diamond-coated silicon according to claim 6 ~~any one of claims 6 to 9~~, further comprising, after the step (e),

(f) a step for controlling a pressure at least once.

11. (currently amended) The manufacturing method of a diamond-coated silicon according to claim 6 ~~any one of claims 6, 7, 9 and 10~~, further comprising, between the step (a) and the step (e), ~~or between the step (d) and the step (e) when present,~~

(b) a step for winding the silicon substrate; and

(c) a step for supplying the wound silicon substrate to a chemical vapor deposition device.

12. (currently amended) The manufacturing method of a diamond-coated silicon according to claim 6 ~~any one of claims 6 to 11~~, further comprising, after the step (e), ~~or after the step (f) when present,~~

(g) a step for winding a diamond-coated silicon.

13. (new) The diamond-coated silicon according to claim 2, wherein the silicon substrate is single crystalline, polycrystalline or amorphous.

14. (new) The diamond-coated silicon according to claim 2, wherein the silicon substrate is coated with electrically conductive diamond by the chemical vapor deposition process.

15. (new) The diamond-coated silicon according to claim 3, wherein the silicon substrate is coated with electrically conductive diamond by the chemical vapor deposition process.

16. (new) The manufacturing method of a diamond-coated silicon according to claim 7, wherein the step (a) and the step (e) are successively carried out.

17. (new) The manufacturing method of a diamond-coated silicon according to claim 7, further comprising, between the step (a) and the step (e):

(d) a step for controlling a pressure at least once.

18. (new) The manufacturing method of a diamond-coated silicon according to claim 8, further comprising, between the step (a) and the step (e):

(d) a step for controlling a pressure at least once.

19. (new) The manufacturing method of a diamond-coated silicon according to claim 7, further comprising, after the step (e):

(f) a step for controlling a pressure at least once.

20. (new) The manufacturing method of a diamond-coated silicon according to claim 8, further comprising, after the step (e):

(f) a step for controlling a pressure at least once.

21. (new) The manufacturing method of a diamond-coated silicon according to claim 9, further comprising, after the step (e):

(f) a step for controlling a pressure at least once.

22. (new) The manufacturing method of a diamond-coated silicon according to claim 7, further comprising, between the step (a) and the step (e):

(b) a step for winding the silicon substrate; and

(c) a step for supplying the wound silicon substrate to a chemical vapor deposition device.

23. (new) The manufacturing method of a diamond-coated silicon according to claim 8, further comprising, between the step (a) and the step (e):

(b) a step for winding the silicon substrate; and

(c) a step for supplying the wound silicon substrate to a chemical vapor deposition device.

24. (new) The manufacturing method of a diamond-coated silicon according to claim 9, further comprising, between the step (d) and the step (e):

(b) a step for winding the silicon substrate; and
(c) a step for supplying the wound silicon substrate to a chemical vapor deposition device.

25. (new) The manufacturing method of a diamond-coated silicon according to claim 10, further comprising, between the step (a) and the step (e):

(b) a step for winding the silicon substrate; and
(c) a step for supplying the wound silicon substrate to a chemical vapor deposition device.

26. (new) The manufacturing method of a diamond-coated silicon according to claim 7, further comprising, after the step (e):

(g) a step for winding a diamond-coated silicon.

27. (new) The manufacturing method of a diamond-coated silicon according to claim 8, further comprising, after the step (e):

(g) a step for winding a diamond-coated silicon.

28. (new) The manufacturing method of a diamond-coated silicon according to claim 9, further comprising, after the step (e):

(g) a step for winding a diamond-coated silicon.

29. (new) The manufacturing method of a diamond-coated silicon according to claim 10, further comprising, after the step (f):

(g) a step for winding a diamond-coated silicon.

30. (new) The manufacturing method of a diamond-coated silicon according to claim 11, further comprising, after the step (e):

(g) a step for winding a diamond-coated silicon.